

BLIGHTS ON TEA AND COTTON.

By M. C. COOKE.

The tea-planters of Cachar have been complaining of late that the leaves of the tea plants have become blighted, so as to interfere seriously with the production of tea. Two or three of the diseased leaves have been sent us for examination. They were not in good condition for the purpose, but on one we detected some punctures of an insect, and on two of the others a parasitic fungus. The leaves are blistered, deformed, and stunted; the fungus appearing on both surfaces like minute black points. The following is a description drawn up from the dry specimens:—

Hendersonia theæcola. *sp. nov.*—Perithecia globose, black, prominent, pierced at the apex, scattered over both surfaces, or subgregarious; spores cylindrical, rounded at the ends, triseptate, pale brown, on long hyaline pedicels ($\cdot 0004\text{--}\cdot 0005$ in.), $01\text{--}0125$ m.m. long, without the pedicels.

On leaves of *Thea*. Cachar, India.

The ultimate cells have sometimes a more hyaline appearance, but we could detect no terminal cilia, otherwise it reminds us of such species of *Pestalozzia* as *P. Guepini*, which occurs on *Camellia* leaves. The only remedy we can suggest is to pick off the diseased leaves and burn them. What portion of the destruction is also due to the insect we have no material for determination, but both are probably culpalbe.

From Dharwar we have also received samples of "Black blight" on naturalised American Cotton. The cotton presents but little external indication of disease so long as the seeds remain entire, but, on crushing the seed the cotton becomes covered with a sooty powder, which at first we were disposed to regard as the spores of a species of *Ustilago*, which entirely fills the seed. After a closer examination, however, we became satisfied that the spores are concatenate, being produced in chains, or jointed threads, in the interior of the seed, and afterwards break up into subglobose spores. This is rather an anomalous habitat for a *Torula*, but such, nevertheless, we are disposed to regard it, and append its description.

Torula incarcerationa. *sp. nov.*—Produced within the seeds of *Gossypium*. Threads simple, or slightly branched, breaking up into minute, subglobose, fuliginous spores.

Within cotton seed. Dharwar, India.

It is rather to be presumed that the *Torula* makes its appearance after the commencement of decay in the seed, stimulated by moisture, than that it should be the cause of disease in the plant. The species of *Torula* with which we are acquainted are produced upon decaying substances, and we have no experience of any one causing disease in living plants. Had this proved to have been a species of *Ustilago*, the case would have been different, but we believe that, notwithstanding its habitat, we are justified in placing it with *Torula*.